

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Golian on July 23, 2008.

The application has been amended as follows:

Please CANCEL claims 22-24.

Please AMEND claim 28 as follows:

28. (Currently Amended) A method of communicating between a client process and a server process over a network, the method comprising:

(a) issuing to the server process a first download request which identifies a file and which requests that the server process transfer a first segment of the file over the network to the client process when an actual network bandwidth utilization for the client process is less than a threshold level below which data may be transferred over the network without interfering with other network activity for the client process, wherein the threshold level is calculated as a function of a maximum monitored level, and wherein the maximum monitored level is a maximum of a monitored level of actual network bandwidth utilization for the client process identified by periodically sampling an amount of incoming and outgoing data transferred over a given time period for data sets greater than a predetermined size threshold;

(b) receiving, from the server process, the first segment of the file;

(c) issuing to the server process a further download request which is associated with the file and which requests that the server process transfer a further segment of the file over the network when the actual network bandwidth utilization is less than the threshold level;

(d) receiving, from the server process, the further segment of the file; and

(e) repeating steps (c) and (d) until the server process has transferred each segment of the file over the network.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: The prior art of record does not provide for, nor suggests providing for a system which will allow a system to monitor the bandwidth used by a user to determine when to download portions of a file. The system will monitor the level of bandwidth utilization coming through a communications interface by periodically sampling an amount of incoming and outgoing data transferred over a given time period. The system then identifies a maximum monitored level of utilization which is identified when data meeting a certain predetermined size threshold is transferred over the interface. A threshold is then determined based on a percentage of the maximum monitored level. When the actual utilization on the interface is less than the threshold level of utilization, the system then transfers a portion of the data file over the connection. The system is designed such that the data transfer of the data file will not substantially interfere with any other network activity (i.e. this is interpreted as the user will not notice any delay when clicking on a URL during the download of a data block, see p. 17, lines 20-22). The monitoring occurs at the interface between the client and the network and the system increments a counter every time a discrete portion is received over the network. The counter is cleared when all the discrete portions are received, or the actual utilization becomes greater than the threshold level.

The computer storage media encompasses only statutory embodiments of the invention such as memory technology, optical disc storage, magnetic disk storage, etc.

and does not encompass communication media such as carrier waves or other transport mechanisms.

The closest prior art of record is Rakavy (cited by Applicant in IDS and used in previous Office Actions). Rakavy is a system which downloads data from a server by examining a percentage of time the network connection is active. If it is active less than a certain amount, then the data is transferred. Rakavy does not examine the level of network bandwidth flowing through the interface, Rather determines if any data is flowing through the interface. The claimed invention actually determines how much data is flowing through. If the data is sufficient such that any transfer in the background would be noticeable to the user, then the transfer is halted. Rakavy would not take into consideration a low level of bandwidth utilization (i.e. 10%), thereby potentially wasting bandwidth which could be used for the background data transfer (i.e. 90% unused). Even though a low level is actually being utilized by the polite agent of Rakavy, the agent would consider the interface as in use, and would not transfer any data. The current invention distinguishes this by seeing how much data is being transferred, and if there is room to transfer the data, then transfer at least a portion of the data file to the client device. This is a novel and non-obvious variation of Rakavy's data transfer method.

The Examiner also cites RFC 1068, entitled "Background File Transfer Protocol" (BFTP). BFTP describes a method for a user to schedule a transfer of a data file, however does not disclose monitoring the bandwidth of the system, determining a data transfer threshold based on the maximum monitored bandwidth, and transferring the

data based on the particular threshold. BFTP is more concerned with the scheduling of data transfers for off-peak (i.e. when the user is not there) versus monitoring the system for opportune times when it can siphon bandwidth to transfer data with no noticeable delay to the user.

For these reasons, in conjunction with the other limitations of the independent claims, puts this case in condition for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Information Disclosure Statement

2. The IDS dated April 24, 2008 has been considered, see enclosed PTO-1449.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey C. Pwu can be reached on (571)272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2146

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph E. Avellino/
Primary Examiner, Art Unit 2146